

5 WHAT IS CLAIMED IS:

1 . A method for treating an asthma related condition in a human, comprising

(a) contacting or administering a pharmaceutical composition comprising an effective amount of at least one asthma related Ig derived protein, with, or to, said cell, tissue, organ or animal, wherein  
10 said asthma related Ig derived protein (i) inhibits at least one biological activity of interleukin-13 (IL-13) *in vitro* or *in vivo*; and (ii) specifically binds at least 1-3 amino acids of at least one selected from the group consisting of (a) 1-10, 10-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100-110, 110-120, 120-130, 130-140, 140-146, or 14-145 of SEQ ID NO:1.

2 . A method according to claim 1, wherein said effective amount is 0.01-50  
15 mg/kilogram of said cells, tissue, organ or animal.

3 . A method according to claim 1, wherein said contacting or said administering is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic,  
20 intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

4 . A method according to claim 1, further comprising administering, prior, concurrently or after said (a) contacting or administering, at least one selected from an asthma related  
25 therapeutic, an anti-infective drug, a cardiovascular (CV) system drug, a central nervous system (CNS) drug, an autonomic nervous system (ANS) drug, a respiratory tract drug, a gastrointestinal (GI) tract drug, a hormonal drug, a drug for fluid or electrolyte balance, a hematologic drug, an antineoplastic, an immunomodulation drug, an ophthalmic, otic or nasal drug, a topical drug, a nutritional drug, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, an analgesic, an anesthetic, a sedative, a  
30 local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, a cytokine, or a cytokine antagonist.

5 . A method according to claim 1, wherein said asthma related condition is selected  
35 from at least one of asthma, bronchial inflammation, excess bronchial mucus or plugs, lung tissue damage, eosinophil accumulation, bronchospasm, narrowing of breathing airways, airway hypersensitivity, airway remodeling, associated pulmonary or sinus inflammation leading to at least one of inspiratory or expiratory airway wheezing, breathlessness, chest tightness, coughing, dyspnea, burning, airway edema, excess mucus, bronchospasm, tachypnea, tachycardia, cyanosis, allergic rhinitis,

- 5 infection, allergy; atopic dermatitis, biorhythm abnormalities, Churg-Strauss syndrome, gastroesophageal reflux disease, hay fever, and allergies.
- 6 . A method according to claim 1, wherein said asthma related Ig derived protein is selected from an antibody, an antibody fragment, an antibody-protein fusion, a soluble receptor and a receptor fusion protein.
- 10 7 . A method according to claim 1, wherein said asthma related Ig derived protein comprises at least one IL-13 binding region.
- 8 . A method according to claim 7, wherein said IL-13 binding region comprises at least one complementarity determining region (CDR).
- 15 9 . A method according to claim 1, wherein said asthma related Ig derived protein comprises at least a portion of at least one human heavy chain variable region or at least one light chain variable region.
- 10 . A method according to claim 1, wherein said asthma related Ig derived protein is a substantially human Ig derived protein.
- 11 . A method according to claim 1, wherein said asthma related Ig derived protein
- 20 binds said asthma related protein with an affinity of at least one selected from at least  $10^{-9}$  M, at least  $10^{-10}$  M, at least  $10^{-11}$  M, or at least  $10^{-12}$  M.
- 12 . A method according to claim 1, wherein said asthma related Ig derived protein substantially neutralizes at least one activity of at least one asthma related protein.
- 13 . A method according to claim 4, wherein said asthma related therapeutic is
- 25 selected from at least one compound or protein that acts on one or more of at least one of beta-2 agonists, anticholinergics, corticosteroids, glucocorticosteroids, anti-allergens, anti-inflammatories, bronchodilators, expectorants, allergy medications, cromolyn sodium, albuterol, Ventolin™, Proventil™; beclomethasone dipropionate inhaler, Vanceril™; budesonide inhaler, Pulmicort Turbuhaler™, Pulmicort Respules™; fluticasone and salmeterol oral inhaler, Advair™ Diskus; fluticasone propionate oral inhaler, Flovent™; hydrocortisone oral, Hydrocortone™, Cortef™;
- 30 ipratropium bromide inhaler, Atrovent™; montelukast, Singulair™; prednisone, Deltasone™, Liquid Pred™; salmeterol, Serevent™; terbutaline, Brethine™; Bricanyl™; theophylline, Theo-Dur™, Respbid™, Slo-Bid™, Theo-24™, Theolair™, Uniphyll™, Slo-Phyllin™; triamcinolone acetanide inhaler, Azmacort™; methotrexate (MTX); interleukin antagonists such as IL-4, IL-5, IL-12 antibodies,
- 35 receptor proteins or antagonists, and antagonist fusion proteins, IgE antibodies and antagonists, CD4 antagonists, antileukotrienes, platelet activating factor, thromboxane antagonists, tryptase inhibitors, NK2 receptor antagonists, ipratropium, theophylline, or disodium chromoglycate (DSCG).
- 14 . A pharmaceutical composition, comprising a pharmaceutically effective amount of at least one asthma related Ig derived protein and a pharmaceutically acceptable carrier or

5     diluent, wherein said asthma related Ig derived protein inhibits at least one biological activity of interleukin-13 (IL-13) *in vitro* or *in vivo* and specifically binds at least 1-3 amino acids of at least one selected from the group consisting of (a) 1-10, 10-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100-110, 110-120, 120-130, 130-140, 140-146, or 14-145 of SEQ ID NO:1.

10     15 .     A pharmaceutical composition according to claim 14, wherein said asthma related Ig derived protein is selected from an antibody, an antibody fragment, an antibody-protein fusion, a soluble receptor and a receptor fusion protein.

16 .     A pharmaceutical composition according to claim 1, wherein said asthma related Ig derived protein comprises at least one IL-13 binding region.

15     17 .     A pharmaceutical composition according to claim 16, wherein said IL-13 binding region comprises at least one complementarity determining region (CDR).

18 .     A pharmaceutical composition according to claim 14, wherein said asthma related Ig derived protein comprises at least a portion of at least one human heavy chain variable region or at least one light chain variable region.

20     19 .     A pharmaceutical composition according to claim 14, wherein said asthma related Ig derived protein is a substantially human Ig derived protein.

20 .     A pharmaceutical composition according to claim 14, wherein said asthma related Ig derived protein binds said asthma related protein with an affinity of at least one selected from at least  $10^{-9}$  M, at least  $10^{-10}$  M, at least  $10^{-11}$  M, or at least  $10^{-12}$  M.

25     21 .     A pharmaceutical composition according to claim 14, wherein said asthma related Ig derived protein substantially neutralizes at least one activity of at least one asthma related protein.

22 .     A method for treating an asthma related condition in a human, comprising ✓

(a) contacting or administering a pharmaceutical composition comprising an effective amount of at least one asthma related Ig derived protein, with, or to, said cell, tissue, organ or animal, wherein  
30     said asthma related Ig derived protein (i) inhibits at least one biological activity of interleukin-13 (IL-13) *in vitro* or *in vivo*; and (ii) specifically binds at least 1-3 amino acids of at least one selected from the group consisting of (a) 1-10, 10-20, 20-30, 30-40, 40-50, 50-60, 60-70, 70-80, 80-90, 90-100, 100-110, 110-120, 120-130, 130-140, 140-146, or 14-145 of SEQ ID NO:1, or a mutein thereof, wherein  
35     said mutein comprises at least one substitution selected from the groups consisting of at least one of Ile48, Val48, Gln90, Glu90, Leu95, Ile95, Leu96, Ile96, Leu99, Ile99, Phe103, Tyr103, Asn130 and/or Gln130.